



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/937,996

09/28/2001

Holger Luthje

02572

8760

987 7590 08/16/2010

SALTER & MICHAELSON
THE HERITAGE BUILDING
321 SOUTH MAIN STREET
PROVIDENCE, RI 029037128

EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3664

NOTIFICATION DATE

DELIVERY MODE

08/16/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ssullivan@saltermichaelson.com
pblackwell@saltermichaelson.com
gkelly@saltermichaelson.com

Office Action Summary	Application No. 09/937,996	Applicant(s) LUTHJE ET AL.	
	Examiner Dalena Tran	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-27 is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

Address : COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09937996	9/28/01	LUTHJE ET AL.	02572

SALTER & MICHAELSON
THE HERITAGE BUILDING
321 SOUTH MAIN STREET
PROVIDENCE, RI 2903-7128

EXAMINER

Dalena Tran

ART UNIT	PAPER
----------	-------

3664	20100811
------	----------

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-27 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, and 12-22, are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al. (5314036).

As per claim 1, Kato et al. disclose a steering device for vehicles including a steering shaft, the steering device comprising: a sensor for determining the movement of said steering shaft, and a circuit for evaluating the measuring signals of the sensor (see column 1, lines 45-57); coded microstructures are provided on the steering shaft and/or on a device that is connected to the steering shaft in a non-positive manner, that a sensor is provided, which detects the microstructures and outputs associated measuring signals (see column 3, lines 14-35), and that an electronic circuit is provided, to which the measuring signals of the sensor are fed and which outputs electronic signals for steering (see columns 1-2, lines 58-7).

As per claim 2, Kato et al. disclose the microstructures form a succession of sequences arranged in an axial direction on the steering shaft and/or the device non-positively connected thereto (see column 2, lines 23-37).

Art Unit: 3664

As per claims 3-4, Kato et al. disclose each sequence comprises multiple and/or single structures arranged spatially in an azimuthal and/or axial direction and containing individual or block-type coding, wherein the sequences contain bit coding (see column 3, lines 36-67).

As per claims 5-6, Kato et al. disclose a plurality of sequences are combined in a block, the blocks being distinguishable from each other by coding; wherein the sequences arranged in an axial direction are present in redundant form, offset parallel more than once over the periphery of the steering shaft (20) and/or device (see column 4, lines 1-32).

As per claim 7, Kato et al. disclose the microstructures are in complementary form (see columns 1-2, lines 58-7).

As per claims 12-13, Kato et al. disclose the microstructures have a level surface and are levelled by a planarizing method; wherein the microstructures are built up from or covered with tribological hard-material layered systems (see column 3, lines 14-35).

As per claim 14, Kato et al. disclose the hard-material layered systems are single films or multi-layer films of TiN and/or TiAlN and/or TiCN films and/or aluminium oxide films and/or amorphous diamantine hydrocarbon films with and without metal doping and/or amorphous CN films and/or cubic boron nitride films and/or diamond films (see column 3, lines 14-35).

As per claims 15-16, Kato et al. disclose the sensors are arranged in the form of a line and/or array; wherein the sensors are optical sensors (see column 1, lines 10-24).

As per claims 17-18, Kato et al. disclose the sensors are optical fibreglass sensors; and the sensors are fibre-optical double or multiple sensors (see column 1, lines 10-24).

Art Unit: 3664

As per claim 19, Kato et al. disclose the microstructures are in the form of a reflection hologram (see column 3, lines 36-67).

As per claims 20-21, Kato et al. disclose the sensors are magnetic sensors; wherein the magnetic sensors are in a linear arrangement for reading a multi-bit code, particularly an 8-bit code (see column 1, lines 45-57).

As per claim 22, Kato et al. disclose the sensor has a reading head with polar structures arranged on an arc matching the diameter of the steering shaft (see columns 2-3, lines 38-13).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-11, are rejected under 35 U.S.C.103(a) as being unpatentable over Kato et al. (5314036) in view of Wand et al. (4800974).

As per claims 8-11, Kato et al. do not disclose a dimension of the microstructure. However, Wand et al. disclose the smallest details of the microstructures have lateral dimensions of 5 nm to 5 mm; lateral dimensions of 1 μ m to 1 mm; the microstructures have a thickness of 5 nm to 1 mm; and a thickness of 100 nm to 100 μ m (see columns 14-15, lines 12-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Kato et al. by combining a dimension of the microstructure for designing vehicle steering control system.

Art Unit: 3664

6. Claim 23-27 are allowable.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Brunning et al. (5422810)

. Yamamoto et al. (6854556)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-W (in a first week of a bi-week), and T-R (in a second week of bi-week) from 7:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dalena Tran/
Primary Examiner, Art Unit 3664

Application/Control Number: 09/937,996

Page 6

Art Unit: 3664